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09/879,870	06/13/2001	William M. Appleman	82,282	4961
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Office of Counsel Code 004 Naval Surface Warfare Center Carderock Division Headquarters 9500 MacArthur Boulevard West Bethesda, MD 20817-5700			EXAMINER MENON, KRISHNAN S	
			ART UNIT 1723	PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 1103

Application Number: 09/879,870  
Filing Date: June 13, 2001  
Appellant(s): APPLEMAN ET AL.

\_\_\_\_\_  
Mr. Jacob Shuster, Attorney  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 10/14/03

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The rejection of claims 2 and 3 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

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US 6,284,451	Funatsu, et al	September 4, 2001
US 5,916,440	Garcera et al	June 29, 1999

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the phrases "... sealed chamber within the module housing through which the contaminate-laden fluid is conducted externally of the processing elements; ....to accommodate lateral withdrawal of the filtered fluid from the processing elements ..." reads as if the contaminate-laden fluid is circulated within the chamber that contains the processing elements, external to the processing elements, and the filtrate comes out laterally of the processing elements from the same side (within the chamber) where the contaminate laden fluid is circulating. How would the filtrate come out from the same side of the processing

element or chamber where the contaminate-laden fluid is conducted? For examination, the examiner assumes the contaminated fluid is flowing internally through the processing elements along their length, and the filtrate is coming out laterally of the processing elements into the chamber that contains the processing elements.

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 2 and 3 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Funatsu (US 6,284,451).

Funatsu (451) teaches a module with housing enclosing a plurality of elongated processing elements (hollow-fibers) (fig 1), sealing means for establishing a sealed chamber within the module housing (4), holding means for positioning the elongated elements within the sealed chamber in a bundled condition (2, fig 1), spacer means for maintaining the elements laterally spaced (3, fig 1) and drain for discharge of clean fluid (6, fig 1) as in claim 2. Contaminate-laden fluid could be conducted through the elements and filtrate collected laterally of the elements as in claim 2. A pair of axially

spaced seal rings (4, fig 1) in radial sealing contact with housing, and the holding means retained within the seal ring for anchoring therein opposite ends of the elements in the bundled condition(3,4, fig 1) as in claim 3. Claims 2 and 3 are anticipated by, or in the least, obvious over the reference as best understood under the preceding 35 USC 112, 2<sup>nd</sup> paragraph, indefiniteness.

2. Claims 2 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Garcera et al (US 5,916,440).

Garcera (440) teaches a module with housing enclosing a plurality of elongated processing elements (ceramic elements) (fig 1), sealing means for establishing a sealed chamber within the module housing (25), holding means for positioning the elongated elements within the sealed chamber in a bundled condition (see fig 1), spacer means for maintaining the elements laterally spaced (24, fig 1) and drain for discharge of clean fluid (4, fig 1) as in claim 2. Contaminate-laden fluid is conducted through the elements and filtrate collected laterally of the elements as in claim 2 (see arrow 3 fig 1). A pair of axially spaced seal rings (25, fig 1) in radial sealing contact with housing, and the holding means retained within the seal ring for anchoring therein opposite ends of the elements in the bundled condition (see 21 fig 1) as in claim 3. Claims 2 and 3 are anticipated by, or in the least, obvious over the reference as best understood under the preceding 35 USC 112, 2<sup>nd</sup> paragraph, indefiniteness.

**(11) Response to Argument**

(A) In response to applicant's argument re the 35 USC 112, second paragraph, rejection: Claim 2 recites in line 4, "... contaminate-laden fluid is conducted externally of the processing elements ..."; and in line 7, "... to accommodate lateral withdrawal of the filtered fluid from the processing elements as a cleansed portion of the contaminate-laden fluid ...". These two lines indicate that the contaminate-laden fluid is conducted externally of the processing elements, and the cleansed (filtered) portion of the contaminate-laden fluid is also withdrawn 'externally' of the processing elements. While it is very clear from the drawings and subsequent language of claim 2 that the liquid is withdrawn from the outer side of the processing elements into the sealed chamber to be drained out through the 'drain means' on the housing, the question is, how is it possible to have the contaminate-laden fluid that is conducted "externally" of the processing elements would be cleansed and taken out from the same side of the processing elements? How does the contaminate-laden fluids enter the processing elements externally? Where does the separation of contaminate-laden fluid to cleansed portion happen? The examiner believes that the line 4 of the claim should read "... contaminate-laden fluid is conducted INTERNALLY of the processing elements ...", so that the cleansed portion of the contaminate-laden fluid would pass through the wall of the processing elements into the sealed chamber, to be discharged through the drain means.

Applicant attempts to correct this issue in the after-final amendments could not be entered because applicant, along with amendments to overcome the 35 USC 112

para 2 issue, also added additional new elements in the claim that required new consideration.

(B) In response to applicant's argument regarding the Funatsu ref, applicant's only contention is that the port (6) of the Funatsu ref is not a drain means, but a feed port for the 'cells'. It may be noted that the applicant is claiming an apparatus, which has a sealed housing, processing elements inside the sealed housing, such processing elements having 'spacer means' to maintain them in laterally spaced condition, a and drain means on the housing for draining the chamber. Funatsu has all these elements. Port (6) of Funatsu would be a drain means if Funatsu's apparatus is used for the cleansing of the contaminate-laden fluid as claimed by the applicant. Funatsu ref anticipates claims 2 and 3 structurally, and the function is inherent from the structure. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). "[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)



(C) In response to the argument that the final rejection under 35 USC 103(a) is clearly in error: Examiner's attempts at correcting the 35 USC 112 para 2 indefiniteness in the claims were unsuccessful up to the final rejection. Therefore, the rejection was made anticipatory or in the alternative, obvious over both Funatsu ref , and Garcera ref (under separate rejections). This was because the claims read "contaminate laden fluids is conducted externally of the processing elements, ..., lateral withdrawal of the filtered fluid from the processing elements [in to the sealed chamber] ...", which both Funatsu and Garcera do not teach, and which is physically not possible in the apparatus as claimed. Therefore, the examiner had to assume that the contaminate-laden fluid is 'conducted internally of the processing elements', which made the rejection of Claims 2 and 3 as anticipated by, or in the least, obvious over the reference as best understood under the preceding 35 USC 112, 2<sup>nd</sup> paragraph, indefiniteness.

(D) In response to the final rejection based on Garcera ref, and applicant's repeated assertion "...previously pointed out and never contested by the Examiner, that the Garcera patent does not filter fluid that is laterally withdrawn and discharged by drainage from the housing ...": The applicant's attention is drawn to Garcera col 5 line 44 – col 6 line 36, particularly, col 5 lines 52-54 and col 5 line 65 – col 6 line 7. Contaminate-laden fluid would flow through the tubular channels (2) as shown by arrow 3, and filtrate would come out laterally of the elements (1) and out through the port as shown by arrow 4. Now, if the applicant's contention is about "drainage from the housing", arrow 4 shows drainage.

It may also please be noted that the applicant's do not seem to contest the structural elements of the Funatsu and the Garcera references, but contest only the functional aspects. Since the claims, even though recited mostly as means plus function, are for improvements in the apparatus (Jepson Claims), claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function [In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997); In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959); and Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)]

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


Krishnan Menon  
Patent Examiner

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November 25, 2003

Conferees

  
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